Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended): A method for assembling a plurality of laser diode submodules comprising the steps of:

~~Preparing~~ preparing the submodules;

situating a substrate on a substrate carrier, the substrate having isolation grooves defined therein and solder thereon between the isolation grooves;

disposing the submodules on a stacking block;

applying a vacuum to the substrate to hold it in place against the carrier;

aligning the submodules with the isolation grooves;

biasing together the substrate carrier and the stacking block with an elastic bimetallic clip; and

heating the clip, block and carrier, with the substrate and submodules therein, until the solder melts and the bimetallic clip opens due to thermal expansion.

2. (currently amended): A method according to claim 1 wherein the step of preparing the submodules comprises the steps of:

disposing a diode between two conductive preforms;

arranging the diode and preforms between parallel spacers to constitute a submodule;

placing the submodule between a ~~conforming~~ confining tool and a loading tool; and

heating the submodule to melt the preforms.

3. (new): A method according to claim 2 further comprising the step of electroplating the parallel spacers with gold over nickel.

4. (new): A method according to claim 2 further comprising the step of making the performs of a gold-tin alloy.

5. (new): A method according to claim 2 further comprising the step of providing a support channel within the loading tool.

6. (new): A method according to claim 5 wherein the step of providing a support channel comprises providing a support channel having a contoured interior.

7. (new): A method according to claim 5 wherein the step of providing a support channel comprises providing a support channel having an upper surface, a lower surface, and parallel ledges to support the diode, the performs, and the parallel spacers.

8. (new): A method according to claim 5 wherein the step of providing a support channel comprises providing a support channel with a bottom surface to receive one of the parallel spacers and an upper surface to support the opposite spacer.

9. (new): A method according to claim 2 further comprising the step of providing a support channel within the confining tool.

10. (new): A method according to claim 9 wherein the step of providing a support channel comprises providing a support channel having a contoured interior.

11. (new): A method according to claim 9 wherein the step of providing a support channel comprises providing a support channel having an upper surface, a lower surface, and parallel ledges to support the diode, the performs, and the parallel spacers.

12. (new): A method according to claim 9 wherein the step of providing a support channel comprises providing a support channel having a bottom surface to receive one of the parallel spacers and an upper surface to support the opposite spacer.

13. (new): A method according to claim 9 wherein the step of providing a support channel comprising a contoured interior comprises providing a contoured interior that is oppositely reflected to the contoured interior of the support channel of the loading tool.

14. (new): A method according to claim 2 wherein the step of placing the submodule between the confining tool and the loading tool comprises bringing the confining tool and the loading tool together to form a conduit and disposing the submodule within the conduit.

15. (new): A method according to claim 2 further comprising the step of providing an abutment at at least one axial end of the diode, the spacers, and the preforms to axially align the submodule.

16. (new): A method according to claim 1 wherein the step of situating the substrate comprises providing a substrate that provides electrical isolation and thermal conductivity between the parallel spacers and a heat sink.

17. (new): A method according to claim 1 wherein the step of providing isolation grooves comprises providing isolation grooves that provide an electrical path through the diodes.

18. (new): A method according to claim 1 further comprising the step of coating the substrate with flux.

19. (new): A method according to claim 1 further comprising the steps of making to substrate of aluminum nitride and of metallizing the substrate.

20. (new): A method according to claim 1 further comprising the step of providing a corrugated surface on the stacking block for holding the submodules

21. (new): A method according to claim 1 wherein the step of biasing together the substrate carrier and the stacking block with an elastic bimetallic clip comprises providing a bimetallic clip with two metals of differing coefficients of thermal expansion.

22. (new): A method according to claim 1 wherein the step of heating comprises heating the submodules and the substrate to solder the submodules to the substrate.

23. (new): A method according to claim 1 wherein the step of heating the clip, bloc, and carrier with the substrate and the submodules therein comprises allowing gravity to act in a direction from the block to the carrier.

24. (new): A method according to claim 1 further comprising the step of providing a heat sink.

25. (new): An apparatus for assembling a plurality of laser diode submodules comprising:

a substrate carrier;

a substrate disposed on said substrate carrier comprising isolation grooves defined therein and solder thereon between said isolation grooves;

a stacking block for disposing a plurality of submodules thereon;

a vacuum source for applying a vacuum to said substrate to hold it in place against said carrier; and

an elastic bimetallic clip for biasing together said substrate carrier and said stacking block.

26. (new): An apparatus according to claim 25 further comprising:

two conductive preforms;

a diode disposed between said two conductive preforms;

parallel spacers within which to dispose said diode and said performs to constitute each said submodule; and

a confining tool and a loading tool between which to place each said submodule.

27. (new): An apparatus according to claim 26 wherein said spacers are electroplated with gold over nickel.

28. (new): An apparatus according to claim 26 wherein said preforms comprise a gold-tin alloy.

29. (new): An apparatus according to claim 26 wherein said loading tool comprises a support channel.

30. (new): An apparatus according to claim 29 wherein said support channel comprises a contoured interior.

31. (new): An apparatus according to claim 29 wherein said support channel comprises an upper surface, a lower surface, and parallel ledges to support said diode, said performs, and said parallel spacers.

32. (new): An apparatus according to claim 29 wherein the step of providing a support channel comprises providing a support channel wherein a bottom surface of the support channel receives one of said parallel spacers and an upper surface supports said opposite spacer.

33. (new): An apparatus according to claim 26 wherein said confining tool comprises a support channel.

34. (new): An apparatus according to claim 33 wherein said support channel comprises a contoured interior.

36. (new): An apparatus according to claim 33 wherein said support channel comprises an upper surface, a lower surface, and parallel ledges to support said diode, said performs, and said parallel spacers.

37. (new): An apparatus according to claim 33 wherein the said support channel comprises a bottom surface to receive one of said parallel spacers and an upper surface to support other, opposite said spacer.

38. (new): An apparatus according to claim 33 wherein said contoured interior of said support channel is oppositely reflected to said contoured interior of said loading tool's support channel.

39. (new): An apparatus according to claim 26 wherein said confining tool and said loading tool comprise a conduit when brought together within which said submodule is disposed.

40. (new): An apparatus according to claim 26 further comprising an abutment at at least one axial end of said diode, said spacers, and said preforms to axially align said submodule.

41. (new): An apparatus according to claim 25 wherein said substrate comprises the ability to provide electrical isolation and thermal conductivity between said parallel spacers and a heat sink.

42. (new): An apparatus according to claim 25 wherein said isolation grooves comprise the ability to provide an electrical path through said diodes.

43. (new): An apparatus according to claim 25 wherein said substrate comprises a coating of flux.

44. (new): An apparatus according to claim 25 wherein said substrate comprises aluminum nitride and is metallized.

45. (new): An apparatus according to claim 25 wherein said stacking block comprises a corrugated surface for holding said submodules.

46. (new): An apparatus according to claim 25 wherein said bimetallic clip comprises two metals of differing coefficients of thermal expansion.

47. (new): An apparatus according to claim 25 comprising a plurality of said submodules soldered on said substrate.

48. (new): An apparatus according to claim 25 wherein said block is positioned above said carrier when heated.

49. (new): An apparatus according to claim 25 further comprising a heat sink.